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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,412	08/28/2006	Peter Radziszewski	771/11168.293	4043

25545 7590 03/26/2009  
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CANADA

EXAMINER
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GISSEL, GUNNAR J

ART UNIT	PAPER NUMBER
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2856

NOTIFICATION DATE	DELIVERY MODE
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03/26/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

afovero@ggd.com  
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## Office Action Summary

Application No.

10/598,412

Applicant(s)

RADZISZEWSKI ET AL.

Examiner

Gunnar J. Gissel

Art Unit

2856

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 80 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 25-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 11-15 and 21 is/are rejected.
- 7) ☐ Claim(s) 16-20 and 22-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

### *Drawings*

1. The drawings were received on 12/29/2008. These drawings are acceptable in light of the amendment to the specification.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purvis (4,655,077) in view of Lake (2001/0001236).

Regarding Claim 11, Purvis discloses a sensor for detecting erosion of a wear surface of a component, the sensor comprising: at least one conductive trace attached to the component such that a wearing portion of the trace between a first trace end and a second trace end comes within a predetermined distance from the wear surface (sensor traces 28, 30, 32, 34 and 36, figure 2) and a circuit for sensing when the first end is isolated from the second end (circuit 38).

Purvis does not explicitly disclose that the trace is on a substrate

Lake discloses a trace on a substrate (substrate 150).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Lake with the device of Purvis, because Lake's use of a substrate allows for greater support of the electrodes and a greater choice in the orientation of the electrodes (Lake, paragraph 40).

Regarding Claim 12, Purvis also discloses a second non-wear surface intersecting the wear surface, wherein said substrate is fastened to the non-wear surface (figure 2).

Regarding Claim 13, Lake discloses an adhesive for fastening said substrate to the non-wear surface (Lake, paragraph 57, adhesive 316).

Regarding Claim 14, Lake discloses that said substrate is a PCB (Lake, PCB 302).

Regarding Claim 15. The sensor of Claim 14, wherein said PCB is flexible (Lake, paragraph 12).

Regarding Claim 21, Purvis discloses that said substrate is embedded in the component (claim 1).

***Allowable Subject Matter***

1. Claims 16-20, 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter: Claim 15 indicates that the flexible PCB is rolled up, and while the prior art discloses flexible PCBs, it does not indicate that the PCBs are rolled up. Claims 17-20

rely on Claim 15. Claim 22 indicates that a cavity is machined into the object having the wear surface, and the prior art indicates the presence of cavities, but does not disclose how the cavities are formed. The examiner notes that the machining of cavities explicitly rules out the possibility of casting cavities. Claims 23 and 24 rely on Claim 22.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 11-15 and 21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunnar J. Gissel whose telephone number is (571)270-3411. The examiner can normally be reached on Mon-Fri, 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571)272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2856

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GJG/

3/19/2009

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856